plane, for mixing a designation of a distance of said tip from said image plane into said 2D image.

Cancel claim 2.

Claim 3 has been amended as follows:

3. (Amended) A system as claimed in claim 15 wherein said navigation system includes identifiers, selected from the group consisting of detectable marks and position sensors, which are respectively attachable to said image signal acquisition unit and to said second subject and which are identifiable as to position by said position acquisition unit.

Claim 4 has been amended as follows:

4. (Amended) A system as claimed in claim 15 wherein said image signal acquisition unit comprises an ultrasound probe.

Claim 5 has been amended as follows:

5. (Amended) A system as claimed in claim 15 wherein said image signal acquisition unit comprises an X-ray source and an X-ray receiver.

Claim 6 has been amended as follows:

6. (Amended) A system as claimed in claim 15 wherein said imaging unit produces a 3D image of said first subject from said image signals.

Claim 7 has been amended as follows:

7. (Amended) A system as claimed in claim 16 wherein said imaging unit products a 2D image of said first subject from said image signals.

Claim 9 has been amended as follows:

9. (Amended) A system as claimed in claim 15 wherein said position acquisition unit simultaneously identifies the position of said image signal acquisition unit an the position of said second subject.

Claim 10 has been amended as follows:

10. (Amended) A system as claimed in claim 15 further comprising an acceptance device for said first subject and wherein said position acquisition device identifies a position of said acceptance device simultaneously with identifying the position of said image signal acquisition unit and the position of said second subject.

Cancel claims 11, 12 and 13.

Claim 14 has been amended as follows:

14. (Amended) A method for mixing an image of a second subject into an image acquired from a first subject, comprising the steps of:

intra-operatively acquiring a 3D image of a first subject with an image signal acquisition unit during an interventional procedure;

determining a position of said image signal acquisition unit;

intra-operatively determining a position of a second subject interacting with said first subject in said interventional procedure;

determining the position of said second subject relative to said image signal acquisition unit; and

intra-operatively mixing a representation of said second subject into said 3D image of said first subject.

Please add the following new claims 16-30.

16. A system comprising:

an image signal acquisition unit for acquiring image signals of a first subject, and an image unit for producing an image of said first subject from said image signals;

a support mechanism for supporting said first subject;

a position acquisition system for determining a position of said image signal acquisition unit, said support mechanism, and a second subject relative to said image signal acquisition unit; and

a mixing unit for mixing a representation of said second subject into said image of said first subject.

17. A system as claimed in claim 16 wherein said navigation system includes identifiers, selected from the group consisting of detectable marks and position sensors, which are respectively attachable to said image signal acquisition unit and to said second subject and which are identifiable as to position by said position acquisition unit.

18. A system as claimed in claim 16 wherein said image signal acquisition unit comprises an ultrasound probe.

19. A system as claimed in claim 16 wherein said image signal acquisition unit comprises an X-ray source and an X-ray receiver.

20. A system as claimed in claim 16 wherein said imaging unit produces a 3D image of said first subject from said image signals.

21. A system as claimed in claim 16 wherein said position acquisition unit simultaneously identifies the position of said image signal acquisition unit an the position of said second subject.

22. A system as claimed in claim 16 wherein said position acquisition unit simultaneously determines said position of said image signal acquisition unit, said support mechanism and said second subject relative to said signal acquisition unit.

23. A system comprising an image signal acquisition unit for acquiring image signals of an examination subject and an imaging unit for producing an image of said examination subject from said image signals;

A4 cont'd

an instrument having a flexible tip adapted for interaction with said examination subject, and a position sensor disposed at said flexible tip;

a navigation system including a position acquisition unit for determining a position of said image acquisition unit and for determining a position of said flexible tip, from said position sensor, relative to said image signal acquisition unit; and

a mixing unit connected to said imaging unit for mixing a representation of said flexible tip into said image of said examination subject.

24. A system as claimed in claim 23 wherein said image signal acquisition unit comprises an ultrasound probe.

25. A system as claimed in claim 23 wherein said image signal acquisition unit comprises an X-ray source and an X-ray receiver.

26. A system as claimed in claim 23 wherein said imaging unit produces a 3D image of said first subject from said image signals.

27. A system as claimed in claim 23 wherein said imaging unit products a 2D image of said first subject from said image signals.

28. A system as claimed in claim 27 wherein said position acquisition unit simultaneously identifies the position of said image signal acquisition unit an the position of said second subject.

29. A system as claimed in claim 7 wherein said 2D image represents an image plane in said first subject, and wherein said mixing unit mixes an indication of a distance of said second subject from said image plane into said 2D image.

A4 Cont'd

30. A system as claimed in claim 23 further comprising an acceptance device for said first subject and wherein said position acquisition device identifies a position of said acceptance device simultaneously with identifying the position of said image signal acquisition unit and the position of said second subject.